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ABSTRACT

Containing recommendations of a 36-person task force, this report establishes a direction for actions that the Virginia Beach, Virginia school division should take to improve the current educational program. Recommendations are presented in four sections. Section 1 (kindergarten-grade 12) discusses curriculum, staff development, and student standards. Sections 2 and 3 (kindergarten-grade 4 and grades 5-8) include descriptions of program directions; programs in language arts, mathematics, science, health, and social studies; and resource, exploratory, and elective programs. Section 4 (grades 9-12) includes discussion of content areas as well as vocational education and specialized studies. Special programs and resource services such as English as a Second Language, gifted education, guidance, library studies, and special education are described in section 5. Three appendices, composing the majority of the text, complete the document. The first appendix provides a program process summary; a summary of staff, student, and community involvement; rosters of the curriculum assessment and development task force and other advisory groups and consultants and a list of school visitations conducted in other state systems; nine tables illustrating results of the curriculum assessment and development senior survey; a copy of the community opinion survey report; and a futures and technology report in chart form. The second appendix, the curriculum foundations report, establishes a basis for curriculum renewal and continuous curriculum development. Finally, the third appendix reports on the use of computers within the school system. (BJD)

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The Virginia Beach City Public School Division has been engaged in a study to chart educational directions for the twenty-first century. The Curriculum Assessment and Development Project was proposed by the Superintendent of Schools, E. E. Brickell, and approved by the School Board in February 1981. Two questions guided the study: What kind of person do we want to produce? What knowledge is of most worth?

This report contains the recommendations of the thirty-six person task force created as the major decision-making group for this study. The report establishes direction for actions that the Virginia Beach school division should take to improve and strengthen the current program. The report states general guidelines and deals with questions on the nature and quality of the program to be developed, rather than with implementation or cost factors.

The first part of the report presents recommended priorities for the kindergarten through grade twelve program, including the foundation for curriculum planning. Other recommendations are grouped into the following sections: kindergarten through grade four, grades five through eight, grades nine through twelve, and special programs and resource services. The report is designed to provide sufficient information to guide the reader through each section, but not to include extensive background information. A thorough account of process and procedures appears in Appendix A.

The curriculum renewal process used in this study has involved a comprehensive examination of the curriculum from kindergarten through grade twelve. It has engaged the community, staff, and students in a dialogue designed to clarify the central purposes of schooling in order to redefine the philosophic base for schooling. Curricular recommendations have developed from that philosophic base.

Every effort was made to integrate a national perspective with the local decision-making process. This effort included visitations to and correspondence with exemplary school divisions, colleges, and universities; discussions with consultants at state and national levels; and review of major national curriculum renewal efforts.

PRIORITIES FOR CURRICULUM AND PROGRAM KINDERGARTEN THROUGH GRADE TWELVE

This section outlines recommendations that establish a comprehensive approach to curriculum development. This approach is designed to link curriculum development to curriculum delivery, communication, and management, and to staff development. Recommendations in this section also include standards for students and central curricular directions.

Curriculum Development and Management

Curriculum development efforts that are disjointed do not clearly reflect a central philosophic base or managerial direction. The task force redefined the philosophic base for curriculum development in the philosophy and goals statement that was approved by the School Board in December 1982. The curriculum foundations report (Appendix B) presents a conceptual framework that extends the philosophy and goals statement into an outline for planning curriculum. That report emphasizes the philosophy and goals statement, the individual learner, identified learning skills and processes, and key curriculum areas.

The following recommendations derive from the base established by the philosophy and goals statement and the curriculum foundations report.

RECOMMENDATION: Establish a systematic approach to curriculum development and management that includes the following:

- **Implement the conceptual planning framework outlined in the curriculum foundations report.**
- **Develop shared responsibility and authority between central office and site-level management for establishing, monitoring, and attaining clear and specific program goals and objectives.**
- **Develop a curriculum revision process that includes a cyclic review of all areas and programs and an objective consideration of several factors, such as student enrollment, cost-effectiveness, assessment data, and relevance to the philosophy and goals.**

RECOMMENDATION: Reorganize the current curriculum committee structure, supervisory groupings, and secondary departmental groupings to reflect the patterns outlined in the curriculum foundations report.

RECOMMENDATION: Develop a comprehensive scope and sequence for the curriculum, kindergarten through grade twelve, and systematically include the following elements in the order of priority listed below:

- **Philosophy and goals statement**
- **Individual learner goals**
- **Learning skills and processes**
- **Curriculum areas**
- **Key subject area concepts and objectives**

- **Assessment tools (state mandated testing and standards, division-developed criterion-referenced testing, writing samples, and specific high school course assessments)**
- **Textbooks and supplemental materials**

RECOMMENDATION: Establish a comprehensive assessment system that incorporates the following characteristics:

- **Links current assessment procedures with division-developed criterion-referenced testing, student writing samples, and specific high school course assessments**
- **Provides evaluation and prescription at the program and student levels**

Curriculum Delivery and Communication

The clear communication of curricular goals and the effective delivery of instruction are critical responsibilities for any school system. Essential directions, goals, objectives, and performance expectations need to be stated clearly to students, staff, and parents and carried out consistently and effectively throughout the division. Responsibility for the attainment of stated goals is shared among students, staff, and parents; all must be informed and knowledgeable about expectations, rights, responsibilities, and procedures. The following recommendations are designed to establish a consistent delivery system and clear communication.

RECOMMENDATION: Ensure consistency of offerings and program content through administrative monitoring and direction, including the use of assessment data.

RECOMMENDATION: Establish a standard format and a consistent organizational pattern for all curriculum guides.

RECOMMENDATION: Include clear references in all curriculum guides to competencies that are assessed.

RECOMMENDATION: Develop curriculum guide documents for staff members that state broad curricular objectives and clarify linkages among programs at the following levels:

- **Overall program, kindergarten through grade twelve**
- **Elementary program, kindergarten through grade four**
- **Intermediate program, grades five through eight**
- **High school program, grades nine through twelve**

RECOMMENDATION: Develop scope and sequence charts that state broad curricular objectives so that the curricular expectations are communicated clearly to staff and community members.

RECOMMENDATION: Restructure student guides to the secondary curriculum to include the following:

- **Clear course objectives, academic expectations, and prerequisites**

- Program requirements and recommended courses of study
- College admission and selection procedures
- Vocational options and opportunities

RECOMMENDATION: Establish a complete guide to expectations, rights, responsibilities, and procedures in the following areas:

- **All placement decisions (i.e., grade level, ability level, course selection, credit review)**
- **Academic work**
- **Conduct**
- **Homework**
- **Grading and evaluation**

RECOMMENDATION: Ensure that all guides to programs, responsibilities, and procedures are provided to students, staff, and parents at the earliest appropriate level.

RECOMMENDATION: Establish a consistent nine-week reporting period that includes comprehensive progress reports for all students at the midpoint of the first and third grading periods.

Staff Development

The quality of a school system is judged by the effectiveness of instruction. Every effort needs to be made to recruit and retain highly qualified personnel and to provide them with extensive opportunities to develop the skills necessary for effective instruction. Current research on effective schools and effective teaching provides clear implications for instructional practice.

The development of human resources is essential to the improvement of the school system. The implementation of project recommendations will require additional training and support.

RECOMMENDATION: Establish clear, systemwide staff development priorities for all personnel and focus financial and training resources primarily on these priorities, while ensuring resources for continued staff development at the building level.

RECOMMENDATION: Establish a staff development academy that includes continuing education and recertification opportunities for all personnel and focuses on the key curricular and instructional directions.

RECOMMENDATION: Institute the administrative assessment center process for the assessment and development of current and prospective administrators.

RECOMMENDATION: Explore creative means to recognize and reward classroom teachers who demonstrate superior teaching skills and to provide staffing options that best use their talent and ability.

RECOMMENDATION: Develop specific strategies to recognize staff members at all levels who render outstanding service.

RECOMMENDATION: Establish more specific and more rigorous criteria for the selection and assessment of all professional staff.

RECOMMENDATION: Specify clear standards for instructional effectiveness, and ensure that assessment and staff development reflect these standards.

Standards for Students

The establishment of rigorous standards and high expectations for all students is a clear responsibility of school systems. Citizenship in a complex and technological world requires a fully educated person. These recommendations are designed to ensure that Virginia Beach graduates think and act in a manner that reflects an education of substance and quality.

RECOMMENDATION: Ensure that grouping procedures take into account the following:

- **Emphasis on positive self-concept**
- **High expectations for all students**
- **Positive peer models**
- **Planned transition in curricular focus from learning skills and processes to curriculum areas**
- **Increased teacher specialization, beginning in the intermediate program**

RECOMMENDATION: Develop a systemwide promotion policy for students in kindergarten through grade eight that includes objective consideration of the following:

- **Reading, writing, and mathematics achievement based on stated systemwide standards**
- **Achievement in other subject areas**
- **Regular attendance, with absences not to exceed thirty days without extenuating circumstances**
- **Teacher judgment**

RECOMMENDATION: Adopt the following graduation requirements, grades nine through twelve:

Subject	Proposed Units
English	4
Mathematics	2
Science	2
Social Studies	
World Cultures	1
Virginia and United States History	1
Virginia and United States Government	1
Health	1
Physical Education	1
Fine Arts	½
Practical Arts	½
Electives	8
Total Credits	22

RECOMMENDATION: Extend the thirty-day absence policy to special education students working on certificates of attendance, with special consideration given to severely retarded or handicapped students.

RECOMMENDATION: Ensure that credit courses in summer sessions are equal in time and requirements to those demanded of students in the regular school session, and offer only courses that can be effectively taught in the summer session.

RECOMMENDATION: Develop new methods and extend current means for recognizing student academic and extracurricular achievement in ways that promote positive and constructive competition, including the following:

- **Create a distinguished scholars program to reward students who successfully engage in the most academically rigorous programs.**
- **Provide weighted grades for Advanced Placement courses.**
- **Report class rank only in deciles, and provide school system profiles with student transcripts for colleges, universities, and employers.**

Central Curricular Directions

Central curricular directions were developed from the philosophic base established through extensive dialogue among students, staff, and the community. Two threads, the learning skills and processes and the curriculum areas, weave through all aspects of the curriculum to give it unity and cohesion. The learning skills and processes of communication, computation, reasoning, creativity, and use of resources are the generative tools basic to all learning. The five curriculum areas—societal and citizenship studies, aesthetics and cultural studies, career and vocational studies, mental and physical health studies, and science and technology studies—provide a way of connecting and interrelating subject matter. The recommendations in this section concern an emphasis on these curricular threads.

RECOMMENDATION: Emphasize the learning skills and processes throughout the curriculum in accordance with the specific focus outlined in the elementary, intermediate, and high school programs.

RECOMMENDATION: Ensure that curricular objectives and materials accommodate students with varying levels of skill development.

RECOMMENDATION: Establish the centrality of communication and thinking in the curriculum through the following:

- Foster the accurate and expressive use of oral and written language in all subject areas.
- Establish writing standards for all grade levels to guide teacher assignments and assessments of writing.
- Link the communication skills—speaking, listening, reading, and writing—with the subject matter development in each subject area.
- Emphasize writing consistent with the developmental levels of students at all grade levels and in all courses.
- Emphasize analysis, reflection, and problem solving throughout the curriculum.
- Emphasize instructional and questioning strategies that encourage students to develop and express ideas.
- Provide a full range of reading materials and other media to challenge students.
- Develop lists of recommended supplemental readings and disseminate to teachers, parents, and students to encourage reading in school and at home.

RECOMMENDATION: Develop and define a common body of knowledge and ideas that all students will experience.

RECOMMENDATION: Build connections among disciplines wherever possible through the curriculum areas of societal and citizenship studies, aesthetics and cultural studies, career and vocational studies, mental and physical health studies, and science and technology studies.

RECOMMENDATION: Develop and implement a plan for use of computers in accordance with the recommendations of the computer report (Appendix C).

RECOMMENDATION: Develop procedures for regular review of courses in language arts, social studies, mathematics, science, and vocational education to incorporate the meaningful use of computers.

ELEMENTARY GRADES
KINDERGARTEN THROUGH GRADE FOUR

This section contains recommendations developed to foster a child-centered elementary program. These recommendations include broad program directions and specific curricular changes, and should be considered in conjunction with the recommendations stated in the kindergarten through grade twelve section.

Program Direction

Students in kindergarten through grade four need a sequential program that is clearly structured around their individual needs. A balanced curriculum is necessary; however, the major focus of the program should be on reading, writing, and mathematics. Students must develop a strong foundation in these communication and computation skills.

Children between the ages of five and ten often have difficulty in making curricular connections for themselves. All instruction should be organized so that there is a clear connection among programs.

A strong remediation program that considers both student needs and strengths is essential at the elementary level where skills in reading, writing, and mathematics are being developed. Resources should be provided to ensure mastery of these essential skills and to avoid cumulative learning deficits that impede further learning.

RECOMMENDATION: Ensure program articulation between kindergarten and first grade.

RECOMMENDATION: Emphasize reading, writing, and mathematics throughout the elementary program.

RECOMMENDATION: Develop a unified science and health curriculum.

RECOMMENDATION: Provide locally developed curriculum materials in science, health, and social studies for kindergarten through grade two.

RECOMMENDATION: Ensure that art, music, and physical education resource programs reinforce the skills and concepts taught in the regular classroom.

RECOMMENDATION: Focus remediation efforts on kindergarten through grade four programs to ensure a strong foundation in reading, writing, and mathematics.

RECOMMENDATION: Provide a specific instructional plan that is based on diagnosis for strengths and needs and that incorporates a method for monitoring achievement for each student retained.

Grouping

The grouping of students for instruction is a persistent problem in elementary education. Homogeneous grouping, students grouped by achievement, and heterogeneous grouping, students not grouped by achievement, are alternative approaches. Virginia Beach elementary

schools, as well as elementary schools across the country, employ either grouping practice or a variation of one of these forms.

Time-on-task and concern for student self-concept are important considerations in determining grouping patterns for students in kindergarten through grade four.

RECOMMENDATION: Maintain heterogeneous grouping for kindergarten.

RECOMMENDATION: Maintain self-contained classes for kindergarten through grade four.

RECOMMENDATION: Ensure that each self-contained classroom in grades one through four is assigned students based on reading achievement to provide a range of reading abilities but to include no more than three groups for reading instruction in each class.

RECOMMENDATION: Eliminate the practice of changing classes in order to group for instruction.

Kindergarten

The kindergarten program in the Virginia Beach City Public Schools is a half-day program. Students may begin kindergarten in September if they will be five years old by the following January 1. For students whose birthdays fall between October and January, there is a mandatory counseling session between parents and staff.

Students enter kindergarten with vast differences in prekindergarten preparation. Some children have acquired many of the social and cognitive skills normally taught in kindergarten, while others are confronted with their first structured social and academic experience. While instruction in kindergarten should continue to be focused on readiness, differences in student experience and ability necessitate consideration of the individual needs of each child.

RECOMMENDATION: Provide more extensive guidelines for personnel involved in the mandatory counseling session for kindergarten students.

RECOMMENDATION: Provide developmental screening for kindergarten students at the beginning of the school year, and vary instruction within the kindergarten program based on identified student needs.

RECOMMENDATION: Provide the language experience approach to language arts development for all students.

RECOMMENDATION: Provide an option for basal reading instruction that includes an emphasis on teacher-directed instruction for students who demonstrate mastery of readiness skills.

Language Arts

Language arts instruction at the elementary level consists of English, handwriting, reading, and spelling. The most effective language arts instruction occurs when all strands of the language arts program are taught together.

The basal series is the core of reading instruction. Often, it becomes the entire reading program. Teachers could use more detailed enrichment units and means of incorporating literature into the existing curriculum along with the basal series. Development of these supplemental units, based on literature from other sources, would help to alleviate the concern that students do not have substantive literature to read.

Acceleration is the progressive movement of students through subject matter above their grade level. It is an option that should remain open for students with demonstrated ability after careful consideration of all aspects of the child's development. Enrichment activities provide students with opportunities to develop and expand personal interests and to apply knowledge and skills in a motivating setting. These enrichment activities are valuable for all students.

Students demonstrating little or no progress in the basal series should be instructed through another approach to capitalize on their individual learning styles and to avoid repetition of their failures.

RECOMMENDATION: Provide a block of time and an integrated approach for the teaching of all language arts strands.

RECOMMENDATION: Encourage the use of enrichment and application activities from the basal series for all students to help build and refine more complex skills and to develop creativity and imagination.

RECOMMENDATION: Develop supplemental units that are built around themes or works of literature to accompany the basal series.

RECOMMENDATION: Provide guidelines for teachers and administrators to use in determining whether a student should be accelerated in the basal series.

RECOMMENDATION: Ensure that a different approach in presenting skills is a main criterion for adopting an alternative basal series for students experiencing difficulty in reading.

Mathematics

Mathematics instruction at the elementary level should provide students with a strong foundation in computational skills and concepts. All students need skills in estimation and approximation in order to effectively set up a problem and explore possible solutions. Calculators are useful tools for students to use in checking their work, but they should not replace the necessity for learning computational skills.

Application and problem solving are essential for all students. The mathematics program at the elementary level must include a variety of materials to provide challenging, in-depth study.

RECOMMENDATION: Encourage more application of computational skills and concepts.

RECOMMENDATION: Ensure that the use of calculators enhances the learning of basic computational skills.

Science and Health

A carefully planned, articulated, and integrated science and health curriculum should provide opportunities for the sequential development of basic science and health concepts, along with the development of process and inquiry skills.

There is no specific curriculum for drug education below the sixth-grade level, but the increasing availability of drugs in society suggests that this topic needs to be included at an earlier grade level.

RECOMMENDATION: Provide appropriate support for teachers to ensure activity-based science and health experiences for all students.

RECOMMENDATION: Begin the sequential teaching of drug education in grade three.

Social Studies

Newly mandated social studies standards of learning objectives can best be met by students whose curriculum is consistent with that prescribed by the State Department of Education. Emphasis on history and geography at an earlier age will help assure that all students have a better foundation for understanding major social studies concepts.

RECOMMENDATION: Modify the current social studies curriculum framework to meet the proposed sequence for the State Department of Education.

RECOMMENDATION: Begin an emphasis on history and geography in grade three.

INTERMEDIATE GRADES
FIVE THROUGH EIGHT

The intermediate program is a new direction for treating students in grades five through eight. It is designed to shape the transition between the elementary program and the high school program. The recommendations concern program direction and organization, and they should be considered in conjunction with the recommendations stated in the kindergarten through grade twelve section.

Program Direction and Organization

The intermediate grades should provide a planned and gradual transition from the self-contained, child-centered elementary setting into the departmentalized, content-oriented high school program. During grades five through eight, students should both anchor their foundation in the learning skills and processes and move toward greater application of these skills and processes in instructional situations. Additionally, the curriculum areas should take on increasingly greater importance and emphasis.

The recommendations that follow describe a program for the unique needs of students in grades five through eight. These grade levels, in general, include children between the ages of ten and fourteen. This is a time of rapid growth and tremendous physical, social, emotional, and intellectual change. This growth and change is not smooth or continuous; rather, it is characterized by diversity among individuals.

Intermediate grade teachers must combine an ability to concentrate on the needs of individual students with greater specialization in one or more content areas. A structure that provides maximum use of content area strengths, development of interdisciplinary linkages, and attention to individual students is needed for teacher planning.

RECOMMENDATION: Provide an educational setting for the intermediate grades that includes consideration of the following:

- **Ensure that each staff member promotes a positive climate for learning and positive self-concepts of students.**
- **Emphasize varied instructional strategies and diversified opportunities for active learning.**
- **Include a balanced curriculum that provides opportunities to explore aptitudes, interests, and capabilities.**
- **Provide for the identification and remediation of specific areas of need in reading, writing, and mathematics.**
- **Develop a teacher-advisor program that provides opportunities for each student to interact on a regular basis with an adult and a group of peers.**

RECOMMENDATION: Develop a program organization that includes the following characteristics:

- **Develop interdisciplinary teams with two or more teachers from language arts, science and health, mathematics, and social studies who work with the same group of students.**

- **Provide clear guidelines that will allow teacher teams to make decisions about use of time.**
- **Organize elective teacher teams and provide for planning within teams and coordination among teams to make the instructional program more cohesive.**
- **Consider various scheduling techniques, including block-time schedules and variations in the number of class periods per subject, per week, to provide flexibility.**
- **Encourage more student involvement in extracurricular and service-oriented activities.**

RECOMMENDATION: Provide a pattern for grouping that includes the following characteristics:

- **Assign students heterogeneously to teacher-advisor groups within interdisciplinary teams.**
- **Provide the option for regrouping for instruction within teams in accord with grouping guidelines established for kindergarten through grade twelve.**

Language Arts

The language arts program should be unified and should reinforce basic skills and processes and their application. Particular attention should be paid to moving students into content-area reading and independent application of the learning skills and processes.

RECOMMENDATION: Provide an integrated language arts program for grades five through eight.

RECOMMENDATION: Continue alternative instruction that is based on a different approach to presenting reading skills for those students experiencing difficulty.

RECOMMENDATION: Encourage the use of enrichment and application activities from the basal series to help build and refine more complex skills and to develop creativity and imagination for all students.

RECOMMENDATION: Develop supplemental units that focus on works of literature, study skills development, and content-area reading.

RECOMMENDATION: Ensure that all students are challenged to their highest abilities in writing and reading assignments.

Mathematics

All students need experiences in mathematics that ensure understanding of skills and concepts through application and problem solving. Variations in the readiness of students for abstract mathematics concepts must be recognized. Some students in the intermediate grades need the opportunity to move into an advanced mathematics sequence.

RECOMMENDATION: Ensure that enrichment, application, and problem-solving activities are stressed in mathematics for all students.

RECOMMENDATION: Provide means for identification of students with a specific aptitude in mathematics, and provide materials for in-depth study.

RECOMMENDATION: Provide options for selected students in the seventh and eighth grades to begin studies in algebra.

Science and Health

The intermediate science and health program should provide a strong foundation in life, physical, and earth science. Health topics, including both mental and physical dimensions, can be effectively integrated into this unified science curriculum. The exploration of science topics should take place through a variety of means, including direct hands-on learning experiences in the classroom, laboratory, and field, and should take advantage of the student's increasing command of mathematics.

RECOMMENDATION: Integrate the science and health curriculum and instruction through grade eight and ensure that key mental and physical health concepts are taught.

RECOMMENDATION: Develop a unified science program through grade eight that includes topics in the physical, life, and earth sciences and incorporates application of mathematical skills and concepts.

Social Studies

The intermediate level social studies curriculum should provide students with an opportunity to understand individual roles as citizens of the nation and of the world and to expand basic knowledge of history and geography.

RECOMMENDATION: Promote understanding of other nations and cultures through continued emphasis on history and geography.

RECOMMENDATION: Promote awareness of major individual roles as citizen, consumer, and family member.

Resource, Exploratory, and Elective Programs

Resource programs include general art and general music for all students in grades five and six and physical education for all students in grades five through eight. An exploratory program should be designed to provide high interest, hands-on activities for students at the seventh-grade level. Electives should continue to be provided at the eighth-grade level for interests and talents in such areas as foreign language, speech, visual language, music, and various vocational areas.

RECOMMENDATION: Ensure that resource programs reinforce key skills and concepts.

RECOMMENDATION: Establish a required exploratory program at the seventh-grade level in music, art, home economics, and industrial arts to be required of all students, with exemptions granted for special circumstances such as gifted and talented and instrumental music.

HIGH SCHOOL
GRADES NINE THROUGH TWELVE

The high school program extends and reinforces the learning skills and processes developed in the elementary and intermediate levels of schooling through specific subject areas. At the ninth-grade level students begin to earn credits toward graduation in accordance with the four-year graduation plan. Students must earn twenty-two credits to graduate from high school. The increase in mathematics and science requirements is designed to provide a more thorough grounding in these areas. The fine and practical arts requirements ensure that all students have experiences in these areas.

This section contains recommendations that are designed to strengthen the high school program and should be considered in conjunction with the recommendations stated in the kindergarten through grade twelve section. Specific recommendations for curricular change are followed by a section of related issues.

Grouping

Ability grouping for instructional purposes at the secondary level is a much debated issue. Research evidence fails to chart a clear strategy, and philosophic differences among educators complicate the issue. When students are grouped and labeled in a way that indicates lesser intellectual capabilities, diminished self-esteem results. A reconsideration of current grouping patterns is needed.

RECOMMENDATION: Develop grouping procedures in grades nine through twelve as follows:

- **Establish two groups in all required English, social studies, and health courses, with one group designated "Honors" and the other group unlabeled.**
- **Maintain heterogeneous grouping in the Virginia and United States government course to accommodate the primary curricular goal of that course—helping young people to understand democratic practice and to function in a democratic society.**

Fine Arts and Practical Arts

Students can meet the graduation requirement of one-half credit each in fine and practical arts by completing one of the current offerings in these areas. There is a need for nonperformance-oriented courses in fine arts to provide for the varying abilities and interests of students.

RECOMMENDATION: Develop elective semester courses in art and music appreciation.

Health and Physical Education

Health and physical education are currently taught together. In most cases, health receives

less time and attention than physical education and, as a consequence, suffers. In the tenth grade, part of the health instructional time is used for driver education. Health is important enough to be treated as a separate academic subject.

Senior high school students need the opportunity to select physical education activities appropriate to their own needs and interests. High school programs need to emphasize lifetime sports, as well as to provide the involvement, knowledge, and understanding necessary for a lifetime of vigorous physical activity.

RECOMMENDATION: Develop a plan for health and physical education to be taught as separate subjects in grades nine and ten.

RECOMMENDATION: Provide driver education instruction outside of the regular school program.

RECOMMENDATION: Ensure that the text and materials provided for health study are appropriate for the grade and interest levels of students.

RECOMMENDATION: Emphasize personal health and fitness and include activities that stimulate circulation and develop endurance in all physical education programs.

RECOMMENDATION: Provide choices among lifetime sports and individual activities for students in grades nine and ten.

RECOMMENDATION: Update elective courses in grades eleven and twelve to reflect current lifetime sports.

Language Arts

The provision of a common core of experiences for all students is a central position of the philosophy and goals statement. There are goals, objectives, and reading selections within the regular high school English program that all students should encounter regardless of the level of instruction. Additionally, providing a common core of experiences for all students will ease the transition of students who wish to move to honors English.

RECOMMENDATION: Provide a common core of experiences in all required English classes.

RECOMMENDATION: Provide resources and develop strategies to help students with reading and language deficits through such means as peer tutoring, parent volunteers, and use of instructional technologies.

RECOMMENDATION: Establish a laboratory-based language arts program designed to supplement the English program for selected students and allow up to two elective credits to be earned.

Mathematics and Science

The increase in mathematics and science credits required for graduation should enable all

students to acquire knowledge needed in an increasingly technological society. The curriculum in both disciplines should accommodate student needs and interests, while maintaining rigor and precision. High interest, consumer-oriented courses as well as courses designed around local resources are options that would meet student needs.

Problem solving and practical application should be stressed in mathematics and science, and a balance should be established between an emphasis on content and an emphasis on process. Coordination between mathematics and science is needed in curriculum development to ensure appropriate integration and development of topics important to both areas. Students should be able to apply mathematics in their science courses. The use of hand-held calculators and computers in both disciplines provides opportunities to place increased emphasis on problem-solving applications.

RECOMMENDATION: Strengthen and coordinate mathematics and science curricula and increase emphasis on problem solving applications.

RECOMMENDATION: Provide mathematics and science sequences to accommodate varying student needs and interests through such means as the following:

- **Develop a calculator-based mathematics course that stresses accuracy and precision.**
- **Restructure the elementary algebra sequence so that it provides the same background as Algebra I.**
- **Develop a science applications course around those chemistry and physics topics important to a technological society.**
- **Develop a marine science course that includes topics in biological, chemical, geological, and physical oceanography.**

Social Studies

Social studies offerings should provide students with knowledge of the basic economic principles that govern our society and the global interrelationships that are a part of everyday political and economic realities for the United States. Students need to know about world history and world geography. The content of both required and elective courses should involve students in critical thinking about historical and contemporary social and political issues.

RECOMMENDATION: Develop a required world cultures course that incorporates geography and history to meet the world studies graduation requirement, and examine the current world geography and world history options to determine their fit with the revised social studies program.

RECOMMENDATION: Include global issues and economics as required units in senior government.

RECOMMENDATION: Examine social studies elective courses to determine if those courses listed in the student guide to curriculum, but not being taught, should be eliminated or strengthened.

Specialized Studies

In order to provide a challenging program of study for the most able students, the Advanced Placement course offerings must be strengthened and expanded, even if certain courses must be taught at designated centers. A center is a designated high school within a geographic area that offers a specialized course to provide for more effective use of facilities, staff, and resources. The center approach for certain advanced courses would permit more of these courses to be offered to students with specific academic aptitudes and talents. This approach would also strengthen the course offerings in foreign languages, mathematics, and science. Certain specialized vocational courses are currently offered at the Vocational-Technical Education Center. Other vocational courses may also require the center approach.

RECOMMENDATION: Maintain and strengthen the existing Advanced Placement programs, and provide new Advanced Placement offerings in science, computer science, and foreign language.

RECOMMENDATION: Offer those Advanced Placement courses that cannot sustain sufficient enrollment in each school at designated centers.

RECOMMENDATION: Offer courses requiring specialized laboratory facilities and specialized instruction at designated centers.

RECOMMENDATION: Examine advanced-level elective programs, and offer those specialized programs that cannot be supported consistently in all high schools at designated centers.

RECOMMENDATION: Investigate the feasibility of providing a center for foreign language and/or international studies that would include higher-level language studies and studies of languages not part of the regular program.

RECOMMENDATION: Investigate the feasibility of providing a center for the fine and performing arts.

RECOMMENDATION: Examine the possibility of using local institutions of higher learning for Advanced Placement work in the afternoon and evening.

Vocational Education Programs

Technological advancements make it increasingly difficult for public schools to provide up-to-date training for students in a wide variety of vocational areas. Instead, public schools should focus on selected training programs with the broadest possible applications. In addition, the public schools should work with businesses, industries, and educational and training institutions within the community to provide more work experience programs and other relevant vocational opportunities for students.

The range of vocational education program options should be communicated clearly to students and parents since careful course planning is necessary to complete sequences, particularly in occupational programs. The following recommendations address this need and others related to technological advancements.

RECOMMENDATION: Develop unified and clear options and sequences in vocational education programs.

RECOMMENDATION: Streamline course sequences and offerings in vocational education programs taught in all high schools.

RECOMMENDATION: Promote program articulation between public school vocational programs and programs offered in vocational schools, community colleges, four-year colleges, and adult education.

RECOMMENDATION: Update vocational curricula and define appropriate uses of technologies in vocational programs.

RECOMMENDATION: Develop a pilot course, introduction to business and marketing, for the ninth- and tenth-grade level to serve as the prerequisite for occupational sequences in both programs.

RECOMMENDATION: Develop a general industrial arts materials and processes course, including such areas as woods, metals, plastics, and ceramics.

RECOMMENDATION: Increase emphasis on cooperative job training in all occupational programs.

Related Issues

Issues related to program direction for grades nine through twelve that require administrative action include the following:

Health and Physical Education

RECOMMENDATION: Separate evaluation and grading for health and physical education.

Language Arts

RECOMMENDATION: Alter the titles of Developmental Reading A and B to indicate clearly the purposes of and distinction between the courses.

Mathematics

RECOMMENDATION: Offer Algebra II and trigonometry both as a one-year Algebra II and a one-semester trigonometry course and as a one-year course combining Algebra II and trigonometry.

RECOMMENDATION: Offer mathematics graduation credit for the prealgebra course.

Science

RECOMMENDATION: Reverse the sequence for offering the current physical science and earth science courses.

SPECIAL PROGRAMS AND RESOURCE SERVICES

Special programs and resource services include areas that have an impact on the entire curriculum. Recommendations include consideration of English as a second language, gifted and talented, guidance, library and media, special education, and resources.

English as a Second Language (ESL)

Non-English speaking students cannot benefit from standard instruction in the regular school setting until they acquire an appropriate level of English proficiency. Forty-eight different primary languages are represented among students entering our schools as non-English speakers. Some of these students have had little or no experience with formal instruction. An intensive, full-time program would enable them to overcome fears and to understand the procedures followed in our schools.

RECOMMENDATION: Provide screening for all potential ESL students prior to entry into regular school programs to determine appropriate placement.

RECOMMENDATION: Provide an intensive ESL program for identified students prior to placement in a regular school program.

RECOMMENDATION: Provide resource persons for individual schools to assist with the gradual mainstreaming of ESL students.

RECOMMENDATION: Provide evaluation criteria for ESL students to determine those students no longer needing services.

RECOMMENDATION: Provide ESL classes after school and during the summer to enable students and their families to improve English proficiency.

Gifted and Talented

Currently, gifted and talented students may attend a center-based program from grades two through seven. There is a program for students talented in the visual arts offered in grades four through six. Junior high students may enroll in courses offered within each school and participate in courses offered at local colleges. Senior high school students may participate in independent study or mentorship programs and enroll in a variety of courses offered at the summer academy.

Consideration needs to be given to some restructuring within the gifted and talented program in accordance with the redesign of the total curriculum for elementary, intermediate, and high school levels.

RECOMMENDATION: Provide a process that includes assessment of performance at the regular school for the reevaluation of students.

RECOMMENDATION: Provide gifted and talented program services within regular schools for gifted students in kindergarten through grade two.

RECOMMENDATION: Extend programs for the talented in art, dance, drama, and music through grade eight.

RECOMMENDATION: Maintain and expand mentorship and independent study programs at the high school level.

Guidance

The increase in graduation requirements means that students will be in credit courses during most of the school day. Alternatives are needed to provide opportunities for parents and students to work with counselors. Clear, printed, guidance materials are needed to adequately guide student decisions. Counseling services could be offered before school, after school, or in the evening. Paraprofessionals could be used to assist students with computerized information sources on colleges, careers, vocations, and financial aid.

RECOMMENDATION: Ensure opportunities for parents and students to meet with counselors and to acquire adequate information for guiding student decisions.

RECOMMENDATION: Provide additional resources within the high school for career and college planning, including computerized information sources.

RECOMMENDATION: Develop a plan for extending guidance services that emphasize counseling into the intermediate grades.

Library and Media

Knowledge and information sources are increasing at a rapid rate. This change means that students must become more familiar with locating and using these resources and that the school system needs to examine ways to use the latest technology to improve learning. Changes within the curriculum and higher expectations for all students mean that more flexible options for library use must be considered, including before school, after school, and evening options.

RECOMMENDATION: Ensure that library facilities are available to all students.

RECOMMENDATION: Provide further integration of library skills in subject-area curricula at all levels.

RECOMMENDATION: Extend cooperative planning with community libraries to ensure availability of appropriate facilities for students before and after school.

RECOMMENDATION: Develop a plan for appropriate uses of the developing information technologies to improve and enrich student learning opportunities.

Special Education

The special education program consists of various options both at the Center for Effective

Learning and within regular schools. Special education programs in regular schools include learning disabled, emotionally disabled, educable mentally retarded, visually impaired, hearing impaired, and speech impaired. In regular schools some programs are taught through resource services, and some are self-contained. At the Center for Effective Learning there are a number of programs, including the trainable mentally retarded and multihandicapped. Special education programs are provided in Virginia Beach for students from ages two through twenty-two.

The individual education plan (IEP) is developed with teacher and parent input and guides instruction. The child study team within each individual school determines placement. Clear identification and curricular guidelines should provide a framework for consistency in placement and program development among schools. Emphasis on higher standards for all students necessitates a reexamination of procedures for granting credit.

RECOMMENDATION: Develop clear, consistent criteria for placement of students in special education programs.

RECOMMENDATION: Develop curriculum guidelines for all special education programs.

RECOMMENDATION: Emphasize consistent IEPs and articulation in special education programs from school to school and year to year.

RECOMMENDATION: Provide information on mainstreamed special education students to regular classroom teachers to assist them with grading and instructional modifications.

RECOMMENDATION: Investigate the feasibility of developing a special education diploma.

RECOMMENDATION: Examine special education courses and offer credit toward graduation if courses meet regular education criteria.

RECOMMENDATION: Provide the option for students to earn up to two elective credits through learning disability courses.

Resources

Education is a shared responsibility of students, home, school, and community. Schools need to use home, community, business, and industrial resources to enhance programs and to provide students with realistic opportunities to apply knowledge. Currently, Virginia Beach schools use parent volunteers and many community resources within the instruction program. Even greater community involvement is needed.

The relationship between business and industry and the schools should be viewed as a partnership with the common goal of enhancing the community as a whole. A more formal liaison for planning and coordination would help develop this partnership.

RECOMMENDATION: Continue to expand the Volunteers-in-Education program in all schools.

RECOMMENDATION: Identify field trips, resource speakers, and community agencies that can assist in curriculum development and implementation.

RECOMMENDATION: Establish a planning and development group for liaison among schools, business and industry, and other educational institutions to include consideration of the following areas:

- Mentorship programs and public service opportunities for students
- Information and other technologies
- Career exploration programs
- Articulation between public school programs and other training and education programs
- Employment opportunities

RECOMMENDATION: Encourage financial support from business, industry, and individuals for educational programs.

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APPENDIX A
PROCESS

Department of Instructional Services
Office of Curriculum Assessment and Development

Process Summary

The Curriculum Assessment and Development Project consisted of the five stages described below:

Stage I (August 1981 - January 1982) focused on gathering data within the school system. Meetings were held with all school faculties, selected building representatives, administrators, supervisors, students, and many other groups. In addition, the Student Advisory Group, representing all secondary schools, was formed. Graduates of Virginia Beach high schools were consulted for additional suggestions.

Stage II (February - June 1982) centered on public involvement and visitations to exemplary school systems and selected colleges and universities. Three public hearings were held to elicit suggestions from the community. The public was also involved through the Citizen Advisory Group, parent-teacher associations, and other community groups.

Stage III (July - November 1982) involved an intensive review by all concerned groups of the ideas presented in this report.

Stage IV (December 1982 - March 1983) focused on refinement and modification of all data analyses, conclusions, and recommendations, leading to a formal report to the Division Superintendent.

Stage V (April - June 1983) provides time for the development of plans for implementation and dissemination.

During Stage I and Stage II of the project, the major focus was on the comprehensive involvement of all groups and the creation of the Curriculum Assessment and Development Task Force, formed in December 1981. The task force was assigned the responsibility for shaping recommendations for curricular change in the Curriculum Assessment and Development Project. The thirty-six members represented a cross section of the Virginia Beach community and included parents, students, and professional staff members.

The Curriculum Assessment and Development Team had major responsibility for receipt, analysis, and synthesis of all data. Sources of data included meetings with teachers, students, parents, community representatives, supervisors, and administrators; suggestion forms; public hearings; visitations to school systems, colleges, and universities; conference attendance; consultant suggestions; and review of literature and existing documents. From these sources, a status report on specific program areas was developed and presented to the task force in April 1982.

Between December 1981 and May 1982, the task force explored curricular issues with both consultants and resource persons in the school system. Staff development activities were con-

ducted for the task force and staff members to extend exploration of curricular issues. Subcommittees were formed to investigate four broad areas: philosophy and goals, futures and technology, curriculum design, and graduation requirements and evaluation. Each subcommittee reported to the task force in May 1982. Each subcommittee employed a similar process, including discussing beliefs about education; reviewing models from other systems; analyzing research, existing policies and procedures, and state and federal mandates and standards; reviewing suggestions from all sources; and preparing, reviewing, and revising reports. The report submitted by each subcommittee to the task force presented the results of these deliberations.

Following review, discussion, and critique of all subcommittee reports, a progress report was prepared. This report was reviewed by teachers, principals, assistant principals, and supervisory personnel in workshop settings from July through September 1982. Citizen and student advisory groups also reviewed selected parts of the progress report. A student survey and a community opinion survey provided further information about specific findings reflected in the progress report.

Department of Instructional Services
Office of Curriculum Assessment and Development

Summary of Involvement

INPUT

72 orientation meetings for staff members that involved 5,405 employees

106 meetings with staff, students, and community members that involved 1,646 persons and 198 hours

624 suggestion forms or letters received with 1,684 suggestions

3 public hearings with a total of 65 speakers giving 117 suggestions

REVIEW

30 meetings with school personnel that involved 354 persons

5 meetings with community members that involved 70 persons

3 meetings with students that involved 45 persons

2 meetings with established committees that involved 17 persons

Total Review

40 meetings that involved 486 persons and 166 hours

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Virginia Beach City Public Schools

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Office of Curriculum Assessment and Development

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Department of Instructional Services
Office of Curriculum Assessment and Development

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School Systems

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Long Beach Unified School District
Modesto High School
Montebello Unified School District

Connecticut

Connecticut State Department of Education
Greenwich Public Schools

Florida

Duval County Schools
Florida State Department of Education

Georgia

DeKalb County Independent School District

Illinois

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Northbrook High School
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Louisiana

St. Charles Parish Schools

Maryland

Anne Arundel County Schools
Howard County Schools
Montgomery County Schools
Prince Georges County Schools

New York

Great Neck Union Free School District
LaGuardia High School of Fine and Performing Arts

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Bronx High School of Science
Scarsdale Unified School District

North Carolina

Charlotte/Mecklenburg School District

Texas

Alief Independent School District
Houston Independent School District

Virginia

Fairfax County Schools

Colleges and Universities

Louisiana

Tulane University

New York

New York University

Texas

University of Houston

Virginia

College of William and Mary
Hampden-Sydney College
Longwood College
Mary Washington College
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Old Dominion University
Sweetbriar College
Tidewater Community College
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Curriculum Assessment and Development
Senior Survey 1982

Virginia Beach City Public Schools

September 1982

E. E. Brickell
Division Superintendent

Walter N. Carroll
Assistant Superintendent for Instructional Services

Table 1

Number of Seniors Responding to *Senior Survey*

High School	Frequency	Percentage
Bayside High School	363	11.2
Cox High School	377	11.6
First Colonial High School	594	18.3
Green Run High School	621	19.1
Kellam High School	306	9.4
Kempsville High School	464	14.3
Princess Anne High School	389	12.0
Career Development Center	32	1.0
(Omitted School's Name)	103	3.2
Total	3,249	*100.0

*Total percentage may not equal 100.0 percent because of rounding.

Table 2

Sex of Seniors

Sex	Frequency	Percentage
Male	1,594	49.1
Female	1,616	49.7
(Omitted)	39	1.2
Total	3,249	100.0

Table 3

Family Income

Income Range	Frequency	Percentage
Less than $10,000	137	4.2
$10,000 — $20,000	573	17.6
$20,000 — $40,000	1,333	41.0
Greater than $40,000	715	22.0
(Omitted)	491	15.1
Total	3,249	*100.0

* Total percentage may not equal 100.0 percent because of rounding.

Table 4

Race of Seniors

Race	Frequency	Percentage
White	2,714	83.5
Black	343	10.6
Hispanic	37	1.1
Oriental	59	1.8
Other	49	1.5
(Omitted)	47	1.5
Total	3,249	100.0

Table 5

Parental Education

Educational Level	Mother		Father	
	Frequency	Percentage	Frequency	Percentage
Some High School	371	11.4	346	10.6
High School	1,315	40.5	875	26.9
Some College	714	22.0	644	19.8
College Degree	540	16.6	700	21.5
Advanced Degree	185	5.7	488	15.0
(Omitted)	124	3.8	196	6.0
Total	3,249	100.0	3,249	*100.0

*Total percentage may not equal 100.0 percent because of rounding.

Table 6

Fall 1982 Status of Seniors

Status	Frequency	Percentage
Four-Year College	1,307	40.2
Two-Year College	517	15.9
Military	147	4.5
Full-Time Employment	688	21.2
Business School	101	3.1
Trade-Technical	209	6.4
Other	188	5.8
(Omitted)	92	2.8
Total	3,249	*100.0

*Total percentage may not equal 100.0 percent because of rounding.

Table 7

Seniors' Rating of Education Received
(Percentages)

Area	Response			
	Excellent	Good	Adequate	Poor
Reading	30.0	50.2	17.2	2.6
Writing	22.2	53.3	21.3	3.2
Speaking	19.0	52.7	24.0	4.3
Listening	20.9	52.0	22.1	4.9
Math	19.4	41.9	29.9	8.8
Science	17.3	44.3	32.5	5.9
Geography	16.4	45.4	30.8	7.5
History	23.2	45.4	25.0	6.4
Current Events	20.0	42.6	30.3	7.1
Cultures and Aesthetics	10.8	36.3	40.6	12.3
Careers/Jobs	22.3	42.9	25.9	8.9
Study Skills	9.0	42.3	34.3	14.4
Problem Solving and Reasoning Skills	20.1	49.4	25.6	4.9

Table 8

Number of Courses Taken by Seniors
(Percentages)

Classification	Number of Courses				
	Two	Three	Four	Five	Six
Junior Year	.3	3.9	17.0	48.8	30.0
Senior Year	2.0	17.9	30.5	34.6	15.0

Table 9

Number of Years Seniors Were Enrolled
in Virginia Beach City Public Schools

Years	Frequency	Percentage
1	119	3.7
2	259	8.0
3	181	5.6
4	224	6.9
5	218	6.7
6	252	7.7
7	172	5.4
8	223	6.9
9	170	5.2
10	184	5.7
11	115	3.5
12	958	29.5
13	71	2.1
14	13	.4
(Omitted)	90	2.8
Total	3,249	100.0

Table 10

Special List of Advanced Courses Taken by Seniors
(Percentages)

Courses	Did You Take Course?	
	No	Yes
Advanced Placement English (12)	90.4	9.6
Superior English 12S	83.7	16.3
Algebra II and Trigonometry	64.6	35.4
Analytic Geometry	84.5	15.5
Mathematical Analysis	85.4	14.6
Advanced Placement Calculus	90.2	9.8
Biology	46.4	53.6
Ecology	89.0	11.0
Chemistry	74.5	25.5
Physics	85.3	14.7
Advanced Placement U. S. History	93.1	6.9
French IV	97.4	2.6
French V	98.8	1.2
German IV	98.1	1.9
German V	98.7	1.3
Spanish IV	96.7	3.3
Spanish V	98.7	1.3
Latin IV	99.4	.6
Latin V	99.6	.4
Advanced Placement Studio Art	98.0	2.0
Advanced Placement Art History	98.5	1.5

Department of Instructional Services
Office of Curriculum Assessment and Development

Community Opinion Survey Report

Virginia Beach City Public Schools

November 1982

E. E. Brickell
Division Superintendent

Walter N. Carroll
Assistant Superintendent for Instructional Services

Introduction

The community opinion survey was developed to solicit community opinions about the Virginia Beach City Public Schools curriculum and related issues. Items on the survey were identified by the Office of Curriculum Assessment and Development from issues being studied by the Curriculum Assessment and Development Task Force. Six hundred and fifty residential telephone numbers were randomly selected from the twenty-three telephone exchanges in Virginia Beach. No attempt was made to distinguish between parent and non-parent residents. After an orientation on how to administer the community opinion survey, thirty volunteers from the PTA telephoned residents from November 1, 1982 through November 5, 1982. This report shows the results of that survey.

Survey results show the percentage of respondents giving the same answer to an item. Answers to the three open-ended questions are grouped according to categories showing the percentage of responses for each category.

Respondents were asked to grade public schools nationwide and in Virginia Beach. Sixty-seven percent graded Virginia Beach Schools "A" or "B," compared to 29 percent grading the nation's public schools "A" or "B." A high percentage of the citizens also agreed to higher standards such as additional math and science credits for graduation and specific standards for elementary promotion and retention. Seventy percent of respondents confirmed that high school students should be in school a full day. A majority of citizens also felt that the public schools should assume responsibility for teaching all students about computers.

Three open-ended questions were posed to respondents to identify strengths, weaknesses, and curriculum areas for improvement. Many respondents did not know or did not choose to answer these questions. Other responses were diverse, and where possible, were grouped according to similarities. The large percentage in the miscellaneous category consists of scattered, isolated responses.

Results of the community opinion survey will be considered by the Curriculum Assessment and Development Task Force in developing recommendations for the Virginia Beach City Public Schools curriculum.

VIRGINIA BEACH CITY PUBLIC SCHOOLS
DEPARTMENT OF INSTRUCTIONAL SERVICES
OFFICE OF CURRICULUM ASSESSMENT AND DEVELOPMENT

Questions for 1982 Community Opinion Survey

1. DO YOU HAVE CHILDREN OF SCHOOL AGE? [248] Yes [266] No (Go on to Question 2)

If yes . . .

a) WHAT LEVEL OF SCHOOLING ARE THEY IN?

[140] Elementary [98] Junior High [76] Senior High

b) DO THEY ATTEND PUBLIC SCHOOLS? If no, go on to question 1 c.

[211] Yes [ ] No

c) DO THEY ATTEND PRIVATE SCHOOLS?

[33] Yes [ ] No

2. HAVE YOU HAD CHILDREN GRADUATE FROM VIRGINIA BEACH CITY PUBLIC SCHOOLS?

[39%] Yes [61%] No

3. HOW LONG HAVE YOU BEEN A RESIDENT OF VIRGINIA BEACH?

[4%] Less than 1 year [18%] 1-4 years [21%] 5-9 years [57%] 10 or more years

4. STUDENTS ARE OFTEN GIVEN THE GRADES A, B, C, D, AND FAIL TO DENOTE THE QUALITY OF THEIR WORK. SUPPOSE THE PUBLIC SCHOOLS THEMSELVES, NATIONALLY, WERE GRADED IN THE SAME WAY. WHAT GRADE WOULD YOU GIVE THE PUBLIC SCHOOLS OF THIS NATION -- A, B, C, D, OR FAIL?

5% A 24% B 40% C 6% D 3% FAIL 22% Don't know/No response

5. HOW ABOUT THE PUBLIC SCHOOLS IN THIS COMMUNITY? WHAT GRADE WOULD YOU GIVE THE PUBLIC SCHOOLS OF VIRGINIA BEACH -- A, B, C, D, OR FAIL?

22% A 45% B 14% C 7% D 2% FAIL 10% Don't know/No response

6. WHAT DO YOU CONSIDER THE MAJOR STRENGTH OF THE VIRGINIA BEACH CITY PUBLIC SCHOOLS?

	Number of Respondents	Percentage of Respondents
Don't Know/No Answer	164	30%
Teachers	123	22%
Curriculum	103	19%
General School Administration/Organization	71	13%
Miscellaneous	45	8%
Neighborhood Schools	14	2%
Discipline	13	2%
Athletics/Extracurricular Activities	10	2%
PTA	9	2%

7. WHAT DO YOU CONSIDER THE MAJOR WEAKNESS OF THE VIRGINIA BEACH CITY PUBLIC SCHOOLS?

	Number of Respondents	Percentage of Respondents
Miscellaneous	151	27%
Don't Know/No Answer	125	23%
None	60	11%
Discipline	59	11%
Overcrowded Schools/Classes	42	8%
Teachers	22	4%
Grading System	17	3%
Reading Curriculum	15	3%
Busing	13	2%
Math Curriculum	10	2%
Not Enough Individualization	10	2%
Lack of Parental Support/Involvement	9	2%
Insufficient Motivation	8	2%

8. SOME PEOPLE JUDGE SCHOOLS ON THE BASIS OF THE SCHOOL CURRICULUM OR WHAT IS TAUGHT BY THE SCHOOL. IS THERE A CURRICULUM AREA THAT YOU WOULD LIKE TO SEE IMPROVED IN THE VIRGINIA BEACH CITY PUBLIC SCHOOLS?

	Number of Respondents	Percentage of Respondents
	TOTAL	TOTAL
Don't Know/No Answer	173	34%
None	154	30%
Miscellaneous	62	12%
Reading	40	8%
English	30	6%
Basic Skills	29	5%
Math	26	5%

9. DO YOU THINK EACH CHILD SHOULD ATTAIN SPECIFIC STANDARDS IN SUCH AREAS AS READING AND MATH FOR GRADE LEVEL PROMOTION IN THE ELEMENTARY SCHOOLS?

93% Yes 7% No Don't know/No response

10. IT HAS BEEN SUGGESTED THAT SIXTH GRADERS BE INCLUDED WITH SEVENTH AND EIGHTH GRADERS IN A MIDDLE SCHOOL. DO YOU FEEL THAT SIXTH GRADERS SHOULD BE IN A MIDDLE SCHOOL?

27% Yes 59% No 14% Don't know/No response

Questions for 1982 Community Opinion Survey

11. IT HAS BEEN SUGGESTED THAT THE NINTH GRADE BE INCLUDED IN THE SENIOR HIGH SCHOOL. DO YOU FEEL THAT NINTH GRADERS SHOULD BE IN THE SENIOR HIGH SCHOOL?

56% Yes 34% No 10% Don't know/No response

12. CURRENTLY STUDENTS ARE REQUIRED TO TAKE ONE YEAR OF MATH IN GRADES 9-12. DO YOU THINK THAT EACH STUDENT SHOULD BE REQUIRED TO TAKE ANOTHER YEAR OF MATH IN ORDER TO GRADUATE FROM HIGH SCHOOL?

85% Yes 13% No 2% Don't know/No response

13. CURRENTLY STUDENTS ARE REQUIRED TO TAKE ONE YEAR OF SCIENCE IN GRADES 9-12. DO YOU THINK THAT EACH STUDENT SHOULD BE REQUIRED TO TAKE ANOTHER YEAR OF SCIENCE IN ORDER TO GRADUATE FROM HIGH SCHOOL?

61% Yes 36% No 3% Don't know/No response

14. SOME STUDENTS ARE ENROLLED IN AS FEW AS TWO CLASSES AND ARE PERMITTED TO LEAVE SCHOOL EACH DAY WHEN THEY FINISH CLASSES. DO YOU THINK THAT HIGH SCHOOL STUDENTS SHOULD BE REQUIRED TO BE ENROLLED IN SCHOOL FOR A FULL DAY, UNLESS THEY ARE ENROLLED IN A WORK-STUDY PROGRAM?

70% Yes 27% No 3% Don't know/No response

15. SHOULD THE PUBLIC SCHOOLS ASSUME THE RESPONSIBILITY FOR TEACHING ALL STUDENTS ABOUT COMPUTERS?

55% Yes 38% No 7% Don't know/No response

16. SHOULD THE PUBLIC SCHOOLS ASSUME THE RESPONSIBILITY FOR TEACHING THREE- AND FOUR-YEAR OLDS PRIOR TO KINDERGARTEN?

11% Yes 86% No 3% Don't know/No response

Questions for 1982 Community Opinion Survey

17. DO YOU THINK STUDENTS ARE CHALLENGED SUFFICIENTLY IN THEIR CLASSWORK?

36%	Yes	45%	No	19%	Don't know/No response

18. DO YOU THINK STUDENTS ARE CHALLENGED SUFFICIENTLY IN THEIR HOMEWORK?

34%	Yes	46%	No	20%	Don't know/No response

19. HOW IMPORTANT DO YOU THINK GOOD PUBLIC SCHOOLS ARE IN ATTRACTING NEW RESIDENTS TO VIRGINIA BEACH?

74%	Very important	18%	Somewhat important	4%	Unimportant	4%	Don't know/ No response

20. HAVE YOU HEARD OR READ ABOUT THE CURRICULUM ASSESSMENT AND DEVELOPMENT STUDY REGARDING THE VIRGINIA BEACH SCHOOL SYSTEM?

29%	Yes	71%	No

Curriculum Assessment and Development Task Force
Futures and Technology Subcommittee

Futures and Technology Report

Virginia Beach City Public Schools

June 1982

E. E. Brickell
Division Superintendent

Futures and Technology

The purpose of the Futures and Technology Subcommittee was to study alternative futures and to suggest educational implications. A comprehensive review of the literature on the future and educational planning for the future, an examination of the impact of science and technology on society and individuals, and the suggestions gathered from Stage I of the Curriculum Assessment and Development Project formed the data base for the study. Attention was given to congruence with the statement of philosophy and goals. The intention was not to propose what the world should be like in the years ahead but rather to suggest what could be.

Transition into the twenty-first century is characterized by an accelerating rate of change, a growing interdependence among nations, an advancing scientific and technological sophistication, a changing family structure, and a changing pattern for work and leisure. Education should provide for the development of knowledge, skills, and attitudes necessary to function effectively in this changing world.

The issues, trends, and educational implications in this section focus on schooling while maintaining a broad view of education as a lifelong endeavor. The community, with its agencies and industries, should be in partnership with the schools to provide for the total education of each individual.

In examining the future, nine issues were identified as key areas of concern. Trends for each issue were identified in an attempt to specify those factors most likely to influence education in the next several decades. Educational implications were then related to the trends but were not intended to correspond on a one-to-one basis. The implications represent principal concerns for future directions in educational programs and services.

Each part of this section includes one of the nine issues with one or more trends and possible educational implications. The final part focuses on selected educational implications.

Issue: Perceptions of Change

TRENDS	EDUCATIONAL IMPLICATIONS
Increasing rate and complexity of change	**Greater emphasis on higher-level thinking skills and the process aspects of learning** **Development of skills and attitudes to deal with alternatives and choices** **Increased concern for the development of the individual** **Need for a futures perspective in the curriculum** **Provision for continuous curriculum evaluation and revision** **Need for linking classroom academic work to action experiences in the community**

An individual's ability to understand and interact with a changing environment is a survival skill for the future. The ability to anticipate and adapt to change will be necessary. The rapidity and complexity of change requires the development of skills and attitudes to deal with alternatives and choices. Education must provide experiences in the process aspects of learning and promote the higher-level thinking skills of application, analysis, synthesis, and evaluation. In order to ensure that preferred futures are attainable, there is a need to develop long-range plans as well as to focus on the implementation of short-range plans.

Issue: Influences of Information Explosion

TRENDS	EDUCATIONAL IMPLICATIONS
Proliferation of knowledge Increasing specialization within the fields of knowledge	Need for interdisciplinary treatment of selected common themes in the curriculum Need for balance in the curriculum between stressing acquisition of facts and developing process skills Increased need for the teacher to become more a facilitator of process Need for increased staff development Need for textbooks to serve as just one of the resource materials for implementation of prescribed curricula Provision for a greater variety of resource materials Need for a strong general education Greater need for use of technology to gather, process, store, and retrieve increasing amounts of information Greater demand for lifelong learning Provision for continuous evaluation and revision of the curriculum

Knowledge is increasing at a rapid rate, and the quantity of available information is so great that the capacities to comprehend, reflect, and evaluate information sources are important skills. Individuals must process and apply information for solving problems, making choices, and creating solutions. The use of information technologies in conjunction with textbooks can provide a greater variety of current educational resource materials. The continuous change and expansion of knowledge implies the need to perceive learning as a lifelong process.

Issue: Effects of Mass Media

TRENDS	EDUCATIONAL IMPLICATIONS
Increasing influence of mass media on society	**Greater need to develop critical analysis, listening, and viewing skills** **Broader use of media as a tool for implementing the curriculum** **Increased need for staff development**

Impressive advances in electronic communication provide for instant worldwide reporting of news and information. Much of what individuals see and hear through the media is their primary source of information. In this media-oriented society, where the average student spends more time viewing television than attending school, it is important that students develop skills in critical analysis, listening, and viewing.

Issue: Concepts of Work and Leisure

TRENDS	EDUCATIONAL IMPLICATIONS
Influence of technology on efficiency and productivity in the workplace	Need for all students to become technologically literate
Greater specialization as the workplace becomes more technical	Greater attention to problem-solving and decision-making skills
Increasing use of home as a workplace	Continued need for competency in communication skills and mathematics
Multiple career options and experiences during a lifetime	Provision for a strong general education to serve as a basis for all vocations
Shifting patterns in employment opportunities	Provision for job-sharing opportunities
Provision of more benefits by employers (child care, health care, recreation, etc.)	Increased concern for career education and counseling
Increasing importance of human relations as a factor in a technological environment	More emphasis on self-fulfillment and worth of the individual
Increased flexibility in scheduling of work time	Increased emphasis on group dynamics and interpersonal relationships
Changes in the amount of leisure time	Increased understanding of and familiarity with lifelong avocational activities
Changes in the definition of retirement	Greater need to consider education as a lifelong process
Increasing options for recreation	Need for schools to promote the use of leisure time for school-related services

The nature of work is changing. The influence of technology is creating a more efficient, technical, and productive working environment, often necessitating greater need for job specialization and technological literacy. Shifting patterns of employment are generating new career options. Other changes may include flexible scheduling of work time, shortened work weeks, regional or community work centers, and use of the home as a work center.

These changes suggest that a strong general education is the best preparation for all vocations. Education and job preparation cannot end at a given point in life; learning is a lifelong process.

Changes in employment, lifestyle, life expectancy, and economic pressures will influence patterns of leisure time. Therefore, constructive use of leisure time necessitates increased understanding of lifelong avocational activities.

Issue: Relationships of Home, School, and Community

TRENDS	EDUCATIONAL IMPLICATIONS
Greater number of families in which both parents work	Greater emphasis on worth of individual, self-concept, and personal fulfillment
Increasing number of single-parent families	Increased need for counseling services from kindergarten through grade twelve
Continued mobility in society	Need for more communication between parents and teachers
Longer life expectancies	Provision for school-sponsored, after-school activities related to the educational program
Utilization of technology in daily living	Increased need for family-life education
Greater number of kindergartners with preschool experience	Need for the school to capitalize on increasing home use of technologies (microcomputers)
Increasing differences in the knowledge base and experiential background of children of the same age	Greater attention to assessment of transfer students
Change in family size	Greater demand for lifelong education
Uncertainty in school population	Need for all students to become technologically literate
Increasing demand for early childhood and child care programs	Greater flexibility in the curriculum for kindergarten students with preschool experience
Changes in parent and community involvement in education	Increased awareness of learning styles and brain behavior
	Increased need for early childhood and child care programs (prekindergarten) emphasizing developmental learning experiences
	Greater flexibility in the curriculum for extension and enrichment
	Need for increased public awareness and understanding of school affairs
	Increased use of parents and community as resources for the educational program

Issue: Relationships of Home, School, and Community (Continued)

An increasingly complex society will create changes in the home, the school, and the community. Individuals no longer share the same background in family structure. The increasing number of families with two working parents as well as large numbers of single-parent families suggest a changing profile of educational expectations.

The differences in the experiential backgrounds of children have an effect on the entire educational process. Each student must be recognized as a unique individual and must be provided with appropriate learning experiences. Greater emphasis on worth of the individual and on the development of a positive self-concept and a sense of self-respect are essential for growth.

The concept of education as a continuous, lifelong process of learning is becoming a reality as the relationship of the home, the school, and the community evolves into a cooperative effort to utilize resources and available facilities. Public awareness of the importance of cooperative involvement and participation and the increasing availability and use of community resources for education will strengthen the school-community bond.

Issue: Factors of Global Interrelationships

TRENDS	EDUCATIONAL IMPLICATIONS
Increased recognition of global responsibility and interdependence	Increased emphasis in the curriculum (interdisciplinary) at all levels on international perspectives and a world view of interdependence
Changes in the economic order of nations	Need to incorporate contemporary studies throughout the curriculum
Recognition of global political realities	Increased importance of developing skills in negotiation, compromise, cooperation, cooperative decision making, and resolution of conflict
Increased contact between cultures in our pluralistic society	Need for including economics education in the curriculum at all levels
Greater proliferation of socio-political issues	Increased emphasis on group dynamics and interpersonal relations
Increased economic interdependence of nations	Greater awareness, understanding, and appreciation of the ethnic-cultural composition of the world

A major concern of society in the future will be learning to coexist in an increasingly interdependent world. The more complex and technological the world becomes, the more individuals must recognize a shared commitment for global responsibilities.

Increased opportunities for cultural interaction in a pluralistic society necessitate greater awareness, understanding, and appreciation of the ethnic-cultural composition of the world. International conflicts and the realities of global living suggest an increased importance for developing skills of negotiation in analyzing and resolving problems.

Issue: Concerns for Energy and the Environment

TRENDS	EDUCATIONAL IMPLICATIONS
Continued depletion and scarcity of resources **Increasing concern for the natural environment** **Reassessment of consumption patterns**	**Greater emphasis in the curriculum on the individual's responsibility for conservation** **Increased need for an interdisciplinary focus on energy and environmental topics** **Need for schools to continue serving as models for conservation and energy** **Need for understanding the limits of the earth's resources** **Need for increased understanding of relationships between scientific principles and problems of energy and the environment**

There is an increasing awareness that resources for meeting the demands of society are finite and that some resources, such as petroleum and natural gas, are nonrenewable. In view of resource depletion and scarcity, society must continuously reassess consumption patterns and search for ways to maintain a balance with the environment. Each individual's responsibility for the conservation of resources must be emphasized. In a world that is becoming more polluted and crowded, there is an increased need to focus on energy and environmental topics.

Issue: Preserving a Democratic Society

TRENDS	EDUCATIONAL IMPLICATIONS
Increased bureaucracy **Increasing influence of special interest groups** **Concern for strengthening democratic ideals**	**Greater need for understanding the process of dealing with the organizational structure and functions of government** **Increasing need for students to assume responsibility in the schools** **Greater youth participation in political and civic affairs** **Need for greater understanding of and respect for the democratic process** **Increased awareness of the impact of socio-political influences**

The preservation of a democratic society depends on the ability of people to cope with a more complex society. Government and other institutions are continuing to expand, and special interest groups are becoming more active. Education is the common ground that can enable a society to strengthen its democratic ideals. Schools must increase opportunities for students to assume responsibility, encourage more participation in political and civic affairs, and nurture a greater understanding of and respect for the democratic process.

Issue: Advancements in Science and Technology

TRENDS	EDUCATIONAL IMPLICATIONS
Increased use of computer technology Continued growth and expansion of information technologies Increased research in the sciences	Need for all students in a technological society to achieve computer literacy Greater provision for use of computers in the instructional process Provision for applying computer-managed techniques to classroom and administrative management of the curriculum Provision for using computer technology to facilitate administrative tasks Continued assessment of the impact of technology on the total curriculum Increased need for understanding and knowledge of mathematics and science Need for staff development in the new technologies Need for a balance in the curriculum between stressing acquisition of facts and developing process skills Development of skills and attitudes to deal with alternatives and choices Need for the school to capitalize on increasing home use of technologies (microcomputers) Preparation for assuming different adult roles in the job market

Science and technology have an enormous influence in a society that is characterized by space exploration, nuclear power, and bioengineering. In such an era, it becomes increasingly important for individuals to have a basic knowledge of science and mathematics in order to understand the impact of science and technology on their lives.

Technology has become a variable that affects each individual's daily life. New information technologies (computers, video-recording devices, inexpensive means of storing and transmitting information) have created a revolution as important as the invention of the printing press. This revolution is causing profound changes in the ways that business and industry are conducted and in the skills necessary to cope with

changing concepts of work. This places new demands on education to foster the development of skills necessary for individuals to make the best use of the information technologies and to function competently in a technological society.

Computers in Education

The potential impact of computer technology on the educational process is so profound that it warrants additional exploration as a concern for the future. Education should seek to develop plans for meeting the computer needs of students, teachers, and administrators. The implications for use of computers in the educational process can be broadly categorized.

Computer-assisted instruction (CAI)

- Drill and practice
- Tutorial interaction
- Simulation activities
- Development of skills in problem solving, thinking, and reasoning

Computer-managed instruction (CMI)

- Assistance for teachers and students in planning instructional sequences
- Storage of student achievement and other testing information
- Construction, scoring, analysis, and evaluation of tests
- Diagnosis and remediation of learning difficulties
- Assistance with vocational counseling and career education services
- Enhancement of library and media center development and staff training
- Production of instructional materials (programs)

Computer support for administrative tasks

- Maintenance of accounting, payroll, and employee records
- Maintenance of attendance, grades, and student records
- Preparation of timetables and systems for planning
- Storage and retrieval of data for research

While there is nearly universal agreement that all students should become computer literate, there is not consensus as to the meaning of computer literacy or as to what constitutes a computer literacy curriculum.

Historically, computer literacy has tended to refer to an awareness level of computer knowledge. Students read about computers and learned about their capabilities, limitations, and applications. They gained insight into how computers have affected the world and the vocational and educational implications of this upon their lives. This perception of computer literacy has been realistic as computers have been very expensive, and it has not been feasible to make hands-on experience available to most students.

Gradually, the development of microcomputers, coupled with the rapid decrease in the price of computer hardware, has suggested a changing definition for computer literacy. It is now a realistic expectation for students at all educational levels to have a microcomputer available for instructional purposes. Decisions must now be made concerning what constitutes computer literacy.

Issue: Advancements in Science and Technology (Continued)

Is it the understanding of the capabilities, applications and effects of computers?

Is it the performance of several tasks on a computer in the same way that a calculator or the typewriter is used?

Is it the demonstration of more advanced programming skills?

Is it the understanding of how a computer works and its electronic dynamics, knowledge traditionally reserved for computer science courses?

Some educators contend that schools should focus their efforts primarily on developing skills that enable students to use the machines so that they can think and solve problems on their own. Other educators insist that hands-on expertise is a shortsighted goal and that without an understanding of the computer's social and technological aspects, tomorrow's citizens will be ill-equipped to cope. Education should address the need for computer literacy in the curriculum while striking a balance between what is technically possible and what is educationally desirable.

Focus on Selected Educational Implications

All of the educational implications previously listed for each issue merit consideration during the review process; however, those listed below were identified as significant by the subcommittee.

As the implications are reviewed, clarified, and expanded, a distinction may be made among those implications that are clearly the responsibility of the school, those that may be more appropriately the responsibility of the community with its agencies and industries, and those that suggest a shared responsibility between the school and the community.

Basic Academic Skills

Increase emphasis on communication skills, mathematics, and science. A strong general education should be the basis for all vocations.

Computers and Other Information Technologies

Incorporate computers and other technologies as a meaningful part of and vehicle for the education of all students. Develop a comprehensive plan for the appropriate uses of technology in the Virginia Beach City Public School System, including a computer literacy program for kindergarten through grade twelve.

Curriculum Flexibility

Provide greater opportunities for enrichment and acceleration in the areas of the curriculum, kindergarten through grade twelve.

Curriculum Revision

Develop a more comprehensive plan for ensuring the ongoing, systematic evaluation and revision of curriculum.

Democratic Ideals

Emphasize an understanding of, respect for, and involvement in the democratic process.

Early Childhood Programs

Expand early childhood programs (prekindergarten) that emphasize developmental learning experiences.

Futures Perspective

Incorporate a futures orientation into all areas of the curriculum. The orientation should reflect and address contemporary issues, future trends, and the relationship of the present to past events and alternative futures.

Global Interrelationships

Emphasize a world view of interdependence, economics, and ethnic-cultural diversity in the curriculum.

Lifelong Learning

Expand opportunities for members of the school's community to pursue learning as a lifelong activity.

Focus on Selected Educational Implications (Continued)

Mass Media

Establish an increased emphasis on critical analysis, listening, and viewing skills as related to media interpretation.

Personal Fulfillment

Place greater emphasis in the schooling process on building positive self-images and interpersonal relationships.

Process Approach

Focus on problem solving, decision making, creativity, and the higher-level thinking skills of application, analysis, synthesis, and evaluation.

Staff Development

Increase opportunities for staff development, particularly in the area of the new technologies.

Use of Community

Increase the use of parent and community resources in the educational program and link classroom work to experiences in the community.

Vocational and Career Education

Ensure that vocational and career education reflect the changing concepts of work and promote personal aspirations.

APPENDIX B
CURRICULUM FOUNDATIONS REPORT

Curriculum Assessment and Development Task Force

Curriculum Foundations Report

Virginia Beach City Public Schools

December 1982

E. E. Brickell
Division Superintendent

Introduction

The purpose of the foundations report is to establish a basis for curriculum renewal and continuous curriculum development in the Virginia Beach City Public Schools. The need for a comprehensive approach to curriculum renewal was inherent in the establishment of the Curriculum Assessment and Development Project. The basic features of this comprehensive curriculum development plan are as follows:

- Focus on the individual learner and the development of self-concept in relationship to society
- Centrality of basic learning skills and processes in all curriculum development
- Interdisciplinary focus
- Kindergarten through grade twelve approach
- Curriculum planning focused on three developmental stages: kindergarten through grade four, grades five through eight, and grades nine through twelve
- Cyclical, continuous curriculum renewal
- Linkage of all curriculum decisions to the central filter of the philosophy and goals statement
- Commitment to the comprehensive involvement of citizens, students, and professional staff members in curriculum decision making

Overview

The Curriculum Assessment and Development Project began with basic questions of education: "What kind of person do we want to produce?" and "What knowledge is of most worth?" Out of these questions, a philosophy and goals statement was developed that states broad goals for students (see Attachment).

A thorough analysis of future trends, concepts, and ideas anchored this project deeply to the commitment to educate fully for a lifetime of learning. This analysis of future trends and research indicated that the demands of society on individual intellectual, emotional, and physical resources would only intensify. Therefore, the quality of a school's curriculum and the strength of its delivery to students increase in importance. Schooling must be improved quantitatively and qualitatively.

Cultivation and enhancement of a healthy self-concept in all learners is one of the most critical functions of schooling, and much instructional effort should be directed toward that end. Additionally, each student should be prepared to function effectively in society. The need for curriculum planners to pay close attention to building self-concept is even more critical as rapid societal and technological change place increasing pressure on individuals.

The broadly stated goals in the philosophy and goals statement need to be refined and made more instructionally specific for curriculum planning. Three elements must be considered: individual, self-concept, and society; learning skills and processes; and curriculum areas. The learning skills and processes are communication, computation, reasoning, use of resources, and creativity. The curriculum areas are defined broadly:

Science and Technology Studies
Mental and Physical Health Studies
Career and Vocational Studies
Aesthetics and Cultural Studies
Societal and Citizenship Studies

Each element of curriculum development will be more specifically defined in terms of curricular intentions. Before each element is examined separately, it is important to understand the relationship of these elements that form the framework of the common educational experience for all students. The relationship and dynamic interplay of the elements are illustrated in Figure 1.

CURRICULUM AREAS
Societal and Citizenship Studies
Science and Technology Studies
LEARNING SKILLS AND PROCESSES
Creativity
Communication
SELF-CONCEPT
INDIVIDUAL
SOCIETY
Aesthetics and Cultural Studies
Mental and Physical Health Studies
Use of Resources
Computation
Reasoning
Career and Vocational Studies

Figure 1.

Stages of Curriculum Development

Many traditional curriculum designs begin curriculum development with subject areas. The Curriculum Assessment and Development Project shifts that emphasis to a larger and more comprehensive perspective that starts with the basic questions of education and then moves through a series of additional filters:

Individual, Self-Concept, and Society
Learning Skills and Processes
Curriculum Areas

It is only through this broad perspective that a comprehensive curriculum with an interdisciplinary focus can be developed. Figure 2 illustrates this view of curriculum development.

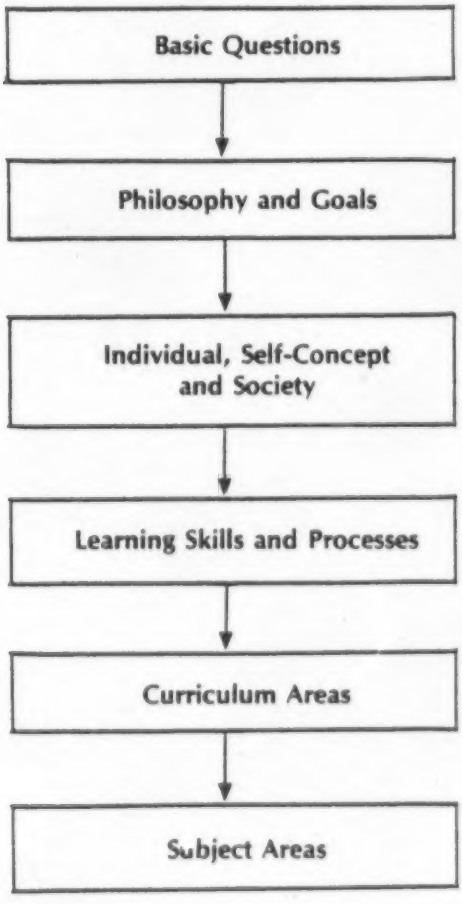

Figure 2.

Individual, Self-Concept, and Society

The focal point for curriculum, and indeed for all schooling, is the individual learner. The learner's evolving self-concept and relationship to society were central to the development of the philosophy and goals. These are a critical part of curriculum design.

In relation to the individual, self-concept, and society, each student should

- Develop a positive, realistic self-image.
- Develop a sense of self-reliance.
- Develop individual talents.
- Assume responsibility for personal actions.
- Develop sound health, fitness, and safety habits.
- Engage in satisfying leisure time activities.
- Develop aesthetic taste and recognize quality.
- Work effectively with others.
- Value family and friends.
- Manage change constructively.
- Understand interdependence in the environment.
- Strive to improve the quality of life.
- Develop sensitivity to other cultures and people.
- Exercise the duties and responsibilities of citizenship in a democracy.
- Act in accord with ethical principles.
- Select and pursue career opportunities.
- Make informed career decisions.
- Seek and value lifelong learning.

Learning Skills and Processes

The development of the learning skills and processes is a basic function of schooling. The learning skills and processes are generative tools by which all knowledge, concepts, and ideas are made accessible. The learning skills and processes are woven through all curriculum areas and all subjects at all grade levels. By their very nature, the language arts and mathematics programs are the primary means by which these learning skills and processes are developed. Teaching in all other areas should contribute to mastery of the learning skills and processes. Student goals for the learning skills and processes are as follows:

Communication

Each student should

- Read, write, speak, and listen effectively.
- Express meaning through disciplined forms such as language, art, music, mathematics, and media.
- Interpret print and nonprint media.

Computation

Each student should

- Apply and interpret arithmetic operations.
- Manipulate and interpret mathematical symbols.
- Use calculators and computers.
- Compute with accuracy.

Reasoning

Each student should

- Identify and define problems.
- Apply problem-solving skills and techniques.
- Use knowledge and ideas from various disciplines to make informed decisions.

Use of Resources

Each student should

- Locate, evaluate, and use various sources of information.
- Use information technologies.
- Manage information and time.
- Develop effective study skills.

Creativity

Each student should

- Demonstrate a willingness to consider new ideas.
- Generate a range of alternatives in problem solving.
- Express original ideas in different ways.

Curriculum Areas

A common body of knowledge and ideas that all students should experience is contained within the five curriculum areas. These interdisciplinary groups represent a way of structuring knowledge, concepts, ideas, and subject matter based on connections and interrelationships.

Student goals for the curriculum areas are as follows:

Science and Technology Studies

Each student should

- Apply knowledge in the natural and physical sciences to daily living and technological concerns.
- Use information technologies.

Mental and Physical Health Studies

Each student should

- Apply knowledge about the functions, growth, and development of the human body to the maintenance of mental and physical health.

Career and Vocational Studies

Each student should

- Apply knowledge of individual abilities and interests related to career selection.
- Analyze career trends, the impact of technology, and the work ethic.
- Develop skills and traits necessary for career success.

Aesthetics and Cultural Studies

Each student should

- Apply knowledge of creative expressions of different cultures and their development over time.
- Develop personal aesthetic criteria and creative abilities.

Societal and Citizenship Studies

Each student should

- Identify the roles and responsibilities of the individual in society and of citizenship in a democracy.
- Analyze historical and geographical aspects of societies and people.

Summary

Education in Virginia Beach City Public Schools should be a unifying experience during which the basic learning skills and processes are mastered and a command of a common body of knowledge and ideas is achieved. The more we hold foremost the centrality of the individual learner and the instructional necessity to prepare each student to function successfully in the complex world, the more we begin to see learning and curriculum as a whole cloth — not a patchwork. Every effort should be made at every grade level and in all courses to enhance the interrelationships of all knowledge.

PHILOSOPHY

The Virginia Beach City Public School System affirms its commitment to excellence in education. To fulfill this commitment to excellence, high expectations must be clearly stated and consistently upheld.

The basic purpose of schooling is to provide the instruction and support necessary for students to develop the fundamental skills and processes essential for the lifelong acquisition and use of knowledge. Ultimately, the responsibility for education is shared by students, school, home, and community.

The challenges of life in a complex world require that all students experience a common body of knowledge and ideas. Command of this common body of knowledge and ideas enables each student to become an educated person who acts in an ethical manner, functions as a contributing member of a democratic society, and aspires to the highest level of achievement in chosen endeavors.

GOALS

The Virginia Beach City Public School System is committed to the following general goals of schooling. Each student should

Achieve competence in basic learning skills and processes.

Communicate thoughts and ideas through a variety of means.

Organize and manage time and resources.

Express creativity and imagination.

Demonstrate self-respect and self-discipline.

Practice sound habits of personal health.

Respect individuals, their cultural differences, and the interdependence of people.

Appreciate beauty in its many forms.

Think critically and make informed decisions.

Demonstrate concern for the environment.

Pursue work and further education.

Accept the responsibility of citizenship in a democracy.

Department of Instructional Services
Computer Advisory Committee

Computer Report

Virginia Beach City Public Schools

December 1982

E. E. Brickell
Division Superintendent

Walter N. Carroll
Assistant Superintendent for Instructional Services

Introduction

The Computer Advisory Committee was formed in October 1982 by Mr. Walter N. Carroll, Assistant Superintendent for Instructional Services. The committee was charged with the task of preparing a report for the Curriculum Assessment and Development Task Force concerning the comprehensive use of computers in the Virginia Beach City Public School System.

In order to present a report to the task force by December 1982, the Computer Advisory Committee determined that there was only sufficient time to suggest broad directions for computer literacy, computer-assisted instruction, computer-managed instruction, and computer support for administrative tasks.

In consideration of the recommendations that follow, additional committee advisory work must be conducted utilizing an expanded advisory group. The expanded advisory group should consist of computer users as well as computer advocates and should proceed with decision making in the following areas:

- Computer literacy implementation
- Instructional applications
- Administrative applications
- Courseware selection
- Hardware selection
- Staff development

The members of the Computer Advisory Committee recognize the importance of involving subject-area supervisory personnel, building administrators, and teachers in discussions regarding instructional and managerial applications specific to each curriculum area. Personnel from Operational Services will need to be involved in the decision-making process concerning hardware selection for all applications that are recommended.

Directions for Development

The major intent of this report is to provide information that can serve as a basis for the continued study and development of the following:

- A computer literacy program for kindergarten through grade eight
- An expanded high school computer science program
- A plan for computer-assisted instruction
- A plan for computer-managed instruction
- A plan for computer support for administrative tasks

Computer Literacy

Computer literacy is envisioned as a sequence of computer-related activities and skills placed in the context of the regular curriculum, across disciplines and across grade levels. The integration of computer literacy skills into the regular program reflects the belief that computer literacy must be a part of the general education of every student.

The goal of computer literacy is to prepare students to function in the technological environment of an increasingly complex world. The computer literacy program should be designed to help students

- Understand what a computer is, how it works, and what it can and cannot do.
- Recognize the impact and applications of computers.
- Become confident in using and controlling computers.

An implementation plan for a computer literacy program should be developed after considering the allied issues of training teachers in computer literacy, equipping all schools with microcomputers, and developing a computer literacy curriculum.

RECOMMENDATION: Incorporate the existing junior high school computer literacy curriculum into the computer literacy scope and sequence for kindergarten through grade eight.

RECOMMENDATION: Develop and implement a computer literacy curriculum in kindergarten through grade eight according to the following schedule.

School Year	Goals
1983-84	Plan curriculum, equip schools, and train staff
1984-85	Implement the computer literacy curriculum in grades five and six.
1985-86	Implement the computer literacy curriculum in grades three, four, and seven.
1986-87	Implement the computer literacy curriculum in kindergarten, grade one, and grade two.

RECOMMENDATION: Select hardware for elementary school computer applications at the earliest opportunity and no later than August 1983.

Computer Science

As a result of the proposed kindergarten through grade eight computer literacy program, students in the senior high schools will require an expanded version of the present computer science course. Advanced programming and more problem-solving applications will need to be part of the course expansion.

Currently, programming is offered only in the BASIC language. Additional computer languages will need to be offered, particularly the Pascal language. Knowledge of the Pascal language is a prerequisite for offering the Advanced Placement course in computer science.

RECOMMENDATION: Expand the present senior high school computer science curriculum to include more advanced programming, more problem-solving applications, and other computer languages.

RECOMMENDATION: Offer the Advanced Placement course in computer science.

Computer-Assisted Instruction

A plan for computer-assisted instruction should include drill and practice; tutorial interaction; simulation activities; and development of skills in problem solving, thinking, and reasoning.

With computer-assisted instruction there should be direct communication between student and computer in an interactive mode. The student's response to items in the computer program is evaluated by the computer, which in turn recommends a further course of action.

RECOMMENDATION: Develop and implement a plan for computer-assisted instruction, kindergarten through grade twelve.

Computer-Managed Instruction

Basically, computer-managed instruction includes all applications of the computer that aid the instructor in instructional management without actually doing the teaching. A plan for computer-managed instruction should include assistance for teachers and students in planning instructional sequences; storage of student achievement and other testing information; construction, scoring, analysis, and evaluation of tests; diagnosis and remediation of learning difficulties; and production of instructional materials (computer programs).

RECOMMENDATION: Develop and implement a plan for computer-managed instruction.

Computer Support

A plan for computer support for administrative tasks should consider attendance, grades, and recordkeeping; word processing and text editing; individual student scheduling; internal management (purchasing, energy management, etc.); and a divisionwide management information system.

RECOMMENDATION: Develop and implement a plan for computer support for administrative tasks.